Amendments to the Claims

1. (Canceled)

2. (Currently amended) A receptor cassette encoding a chimeric receptor polypeptide comprising ~~according to claim 1, wherein~~:

1) a DNA binding (C) domain;
2) a hinge (D) domain of an ecdysone receptor (EcR) of an insect selected from the group consisting of *Manduca sexta, Agrotis ipsilon, Spodoptera frugiperda, Chironomus tentans,* and *Locusta migratoria*;
3) a ligand binding (E) domain that is heterologous with respect to said hinge (D) domain; and
4) an activation domain; wherein

a) said DNA binding (C) domain is a *Manduca sexta* EcR DNA binding (C) domain, said hinge (D) domain is a *Manduca sexta* EcR hinge (D) domain, and said ligand binding (E) domain is a *Drosophila melanogaster* EcR ligand binding (E) domain;

b) said DNA binding (C) domain is a *Manduca sexta* EcR DNA binding (C) domain, said hinge (D) domain is a *Manduca sexta* EcR hinge (D) domain, and said ligand binding (E) domain is an *Agrotis ipsilon* EcR ligand binding (E) domain;

c) said DNA binding (C) domain is a GAL4 DNA binding domain, said hinge (D) domain is a *Manduca sexta* EcR hinge (D) domain, and said ligand binding (E) domain is an *Agrotis ipsilon* EcR ligand binding (E) domain;

d) said DNA binding (C) domain is a *Manduca sexta* EcR DNA binding (C) domain, said hinge (D) domain is a *Manduca sexta* EcR hinge (D) domain, and said ligand binding (E) domain is an *Ostrinia nubilalis* EcR ligand binding (E) domain;

e) said DNA binding (C) domain is a GAL4 DNA binding domain, said hinge (D) domain is a *Manduca sexta* EcR hinge (D) domain, and said ligand binding (E) domain is an *Ostrinia nubilalis* EcR ligand binding (E) domain;

f) said DNA binding (C) domain is a *Manduca sexta* EcR DNA binding (C) domain, said hinge (D) domain is a *Manduca sexta* EcR hinge (D) domain, and said ligand binding (E) domain is a *Spodoptera frugiperda* EcR ligand binding (E) domain;

g) said DNA binding (C) domain is a GAL4 DNA binding domain, said hinge (D) domain is a *Manduca sexta* EcR hinge (D) domain, and said ligand binding (E) domain is a *Spodoptera frugiperda* EcR ligand binding (E) domain;

h) said DNA binding (C) domain is a *Locusta migratoria* EcR DNA binding (C) domain, said hinge (D) domain is a *Locusta migratoria* EcR hinge (D) domain, and said ligand binding (E) domain is a *Manduca sexta* EcR ligand binding (E) domain;

i) said DNA binding (C) domain is a *Manduca sexta* EcR DNA binding (C) domain, said hinge (D) domain is a *Manduca sexta* EcR hinge (D) domain, and said ligand binding (E) domain is a *Locusta migratoria* EcR ligand binding (E) domain;

j) said DNA binding (C) domain is a *Chironomus tentans* EcR DNA binding (C) domain, said hinge (D) domain is a *Chironomus tentans* EcR hinge (D) domain, and said ligand binding (E) domain is a *Manduca sexta* EcR ligand binding (E) domain; or

k) said DNA binding (C) domain is a *Manduca sexta* EcR DNA binding (C) domain, said hinge (D) domain is a *Chironomus tentans* EcR hinge (D) domain, and said ligand binding (E) domain is a *Chironomus tentans* EcR ligand binding (E) domain.

3. (Original) A receptor cassette according to claim 2, wherein said activation domain is a VP16 activation domain.

4. (Currently amended) A receptor cassette encoding a chimeric receptor polypeptide comprising: ~~according to claim 1, wherein~~

1) a DNA binding (C) domain;
2) a hinge (D) domain of an ecdysone receptor (EcR) of an insect, wherein said hinge (D) domain is a *Manduca sexta* EcR hinge (D) domain;

3) a ligand binding (E) domain that is heterologous with respect to said hinge (D) domain wherein said ligand binding (E) domain is an *Ostrinia nubilalis* EcR ligand binding (E) domain; and

4) an activation domain.

5. (Original)A receptor cassette according to claim 4, wherein said DNA binding (C) domain is a GAL4 DNA binding domain.

6. (Original) A receptor cassette according to claim 5, wherein the C, D, and E domains of said chimeric receptor polypeptide comprise an amino acid sequence at least 90% identical to amino acids 1-508 of SEQ ID NO:121.

7. (Original) A receptor cassette according to claim 6, wherein the C, D, and E domains of said chimeric receptor polypeptide comprise amino acids 1-508 of SEQ ID NO:121.

8. (Original) A receptor cassette according to claim 5, comprising a nucleic acid sequence, the complement of which hybridizes under stringent conditions to nucleotides 1-1524 of SEQ ID NO:120.

9. (Original) A receptor cassette according to claim 8, comprising nucleotides 1-1524 of SEQ ID NO:120.

10. (Original) A receptor cassette according to claim 5, wherein said DNA binding (C) domain is a GAL4 DNA binding domain, wherein said hinge (D) domain is a *Manduca sexta* EcR hinge (D) domain, wherein said ligand binding (E) domain is an *Ostrinia nubilalis* EcR ligand binding (E) domain, and wherein said activation domain is a VP16 activation domain.

11. (Original) A receptor cassette according to claim 10, wherein said chimeric receptor polypeptide comprises an amino acid sequence at least 90% identical to SEQ ID NO:121.

12. (Original) A receptor cassette according to claim 11, wherein said chimeric receptor polypeptide comprises SEQ ID NO:121.

13. (Original) A receptor cassette according to c laim 10, comprising a nucleic acid sequence, the complement of which hybridizes under stringent conditions to SEQ ID NO:120.

14. (Original) A receptor cassette according to claim 13, comprising SEQ ID NO:120.

15. (Original) A receptor cassette encoding a chimeric receptor polypeptide comprising:

a) a DNA binding (C) domain;
b) a hinge (D) domain;
c) a ligand binding (E) domain of an ecdysone receptor (EcR) of an insect selected from the group consisting of *Manduca sexta, Agrotis ipsilon, Spodoptera frugiperda, Chironomus tentans,* and *Locusta migratoria*, wherein said ligand binding (E) domain is heterologous with respect to said hinge (D) domain; and
d) an activation domain.

16. (Original) A receptor cassette according to claim 15, wherein:

a) said DNA binding (C) domain is an *Ostrinia nubilalis* EcR DNA binding (C) domain, said hinge (D) domain is an *Ostrinia nubilalis* EcR hinge (D) domain, and said ligand binding (E) domain is an *Agrotis ipsilon* EcR ligand binding (E) domain;

b) said DNA binding (C) domain is an *Ostrinia nubilalis* EcR DNA binding (C) domain, said hinge (D) domain is an *Ostrinia nubilalis* EcR hinge (D) domain, and said ligand binding (E) domain is a *Manduca sexta* EcR ligand binding (E) domain;

c) said DNA binding (C) domain is a GAL4 DNA binding domain, said hinge (D) domain is an *Ostrinia nubilalis* EcR hinge (D) domain, and said ligand binding (E) domain is a *Manduca sexta* EcR ligand binding (E) domain;

d) said DNA binding (C) domain is a *Drosophila melanogaster* EcR DNA binding (C) domain, said hinge (D) domain is a *Drosophila melanogaster* EcR hinge (D) domain, and said ligand binding (E) domain is a *Manduca sexta* EcR ligand binding (E) domain; or

e) said DNA binding (C) domain is a *Drosophila melanogaster* EcR DNA binding (C) domain, said hinge (D) domain is a *Drosophila melanogaster* EcR hinge (D) domain, and said ligand binding (E) domain is an *Agrotis ipsilon* EcR ligand binding (E) domain.

17. (Original) A receptor cassette according to claim 16, wherein said activation domain is a VP16 activation domain.

18-20. (Canceled)

21. (Currently amended) A receptor cassette encoding a chimeric receptor polypeptide comprising ~~according to claim 20~~:

a) said DNA binding (C) domain is an *Ostrinia nubilalis* EcR DNA binding (C) domain, said hinge (D) domain is an *Ostrinia nubilalis* EcR hinge (D) domain, and said ligand binding (E) domain is an *Ostrinia nubilalis* EcR ligand binding (E) domain;

b) said DNA binding (C) domain is a GAL4 DNA binding domain, said hinge (D) domain is an *Ostrinia nubilalis* EcR hinge (D) domain, and said ligand binding (E) domain is an *Ostrinia nubilalis* EcR ligand binding (E) domain;

c) said DNA binding (C) domain is a *Locusta migratoria* EcR DNA binding (C) domain, said hinge (D) domain is a *Locusta migratoria* EcR hinge (D) domain, and said ligand binding (E) domain is a *Locusta migratoria* EcR ligand binding (E) domain;

d) said DNA binding (C) domain is a *Chironomus tentans* EcR DNA binding (C) domain, said hinge (D) domain is a *Chironomus tentans* EcR hinge (D) domain, and said ligand binding (E) domain is a *Chironomus tentans* EcR ligand binding (E) domain;

e) said DNA binding (C) domain is a *Manduca sexta* EcR DNA binding (C) domain, said hinge (D) domain is a *Manduca sexta* EcR hinge (D) domain, and said ligand binding (E) domain is a *Manduca sexta* EcR ligand binding (E) domain;

f) said DNA binding (C) domain is a GAL4 DNA binding domain, said hinge (D) domain is a *Manduca sexta* EcR hinge (D) domain, and said ligand binding (E) domain is a *Manduca sexta* EcR ligand binding (E) domain; or

g) said DNA binding (C) domain is a *Drosophila melanogaster* EcR DNA binding (C) domain, said hinge (D) domain is a *Drosophila melanogaster* EcR hinge (D) domain, and

said ligand binding (E) domain is an *Drosophila melanogaster* EcR ligand binding (E) domain; and

wherein said activation domain is a VP16 activation domain, a C1 activation domain, or a Dof1 activation domain.

22. (Currently amended) A receptor cassette according to claim [[18]] 21, wherein said DNA binding (C) domain is a GAL4 DNA binding domain, wherein said hinge (D) domain is a *Manduca sexta* EcR hinge (D) domain, wherein said ligand binding (E) domain is a *Manduca sexta* EcR ligand binding (E) domain, and wherein said activation domain is a VP16 activation domain.

23. (Currently amended) A receptor cassette according to claim [[22]] 21, wherein said VP16 activation domain is located at the N-terminus of said chimeric receptor polypeptide.

24. (Currently amended) A receptor cassette according to claim [[22]] 21, wherein said VP16 activation domain is located internally in said chimeric receptor polypeptide between said GAL4 DNA binding domain and said *Manduca sexta* EcR hinge (D) domain.

25. (Currently amended) A receptor cassette according to claim [[22]] 21, wherein said VP16 activation domain is located at the C-terminus of said chimeric receptor polypeptide.

26. (Original) A receptor cassette according to claim 25, wherein said chimeric receptor polypeptide comprises an amino acid sequence at least 90% identical to SEQ ID NO:105.

27. (Original) A receptor cassette according to claim 26, wherein said chimeric receptor polypeptide comprises SEQ ID NO:105.

28. (Original) A receptor cassette according to claim 25, comprising a nucleic acid sequence of which the complement hybrdizes under stringent conditions to nucleotides 2007-3668 of SEQ ID NO:104.

29. (Original) A receptor cassette according to claim 28, comprising nucleotides 2007-3668 of SEQ ID NO:104.

30-49. (Canceled)

50. (Currently amended) A transgenic plant comprising a transgenic plant cell comprising a receptor expression cassette comprising a heterologous promoter sequence operatively linked to a receptor cassette according to claim 2 ~~according to claim 49~~.

51. (Original) Seed from a transgenic plant according to claim 50.

52-57. (Canceled)

58. (Currently amended) A transgenic plant comprising a transgenic plant cell comprising a receptor expression cassette comprising a heterologous promoter sequence operatively linked to a receptor cassette according to claim 15 ~~according to claim 57~~.

59. (Original) Seed from a transgenic plant according to claim 58.

60-65. (Canceled)

66. (Currently amended) A transgenic plant comprising a transgenic plant cell comprising a receptor expression cassette comprising a heterologous promoter sequence operatively linked to a receptor cassette according to claim 16 ~~according to claim 65~~.

67. (Original) Seed from a transgenic plant according to claim 66.

68-97. (Canceled)